

NOTE

VASCULAR PLANTS OF THE ISLAND OF  
NEWFOUNDLAND, CANADA:  
RECENT ADDITIONS AND REDISCOVERIES

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The Newfoundland Rare Plant Project (NFRPP) was initiated in 1999 as a multi-partnered effort led by the Newfoundland and Labrador Department of Tourism, Culture and Recreation, the Atlantic Canada Conservation Data Centre, and the Institut de recherche en biologie végétale of the Université de Montréal. The main goals of the project have been to update the previous list of rare vascular plants of the Island (Bouchard et al. 1991) and to obtain data to support management efforts towards the conservation of rare plants.

During its initial three years (1999 to 2001), the NFRPP conducted a major new inventory of the vascular plants of the Island of



Newfoundland. This was done primarily through intensive, targeted field surveys in the western, central, and northeastern regions of the Island. Work also involved reevaluation of the relevant literature and verification of some critical herbarium specimens at the Provincial Museum of Newfoundland and Labrador (NFM) and the Herbar Marie Victorin of the Université de Montréal (MT). Since 2001, individuals and institutions involved in the NFRPP have continued to collect and compile information on vascular plants throughout the province of Newfoundland and Labrador.

The list provided here adds to the *Annotated Checklist of the Vascular Plants of Newfoundland and Labrador* (Meades et al. 2000), which already incorporates some of the early findings of the NFRPP. So far, the NFRPP has recorded twelve vascular plant taxa new to the Island of Newfoundland. Eleven of these are considered native: *Symphyotrichum boreale*, *S. tradescantii*, *Lechea intermedia*, *Bartonia virginica*, *Proserpinaca pectinata*, *Carex radiata*, *C. retrorsa*, *Eleocharis erythropoda*, *Scirpus pedicellatus*, *Potamogeton richardsonii*, and *P. robbinsii*. One more, *Hypericum pulchrum*, is considered introduced. The NFRPP has also rediscovered six rare vascular plant taxa previously known for the Island only from historical records: *Equisetum hyemale* subsp. *affine*, *Oclemena acuminata*, *Symphyotrichum ciliolatum*, *Ranunculus recurvatus* var. *recurvatus*, *Carex petricosa* var. *misan-droides*, and *Juncus subcaudatus*.

A more detailed account for each of the taxa listed above is provided in the following “Species Accounts” section. Families are presented in the same order as in Meades et al. (2000). Nomenclature follows Meades et al. (2000) for taxa included therein, the *Flora of North America* for species of Potamogetonaceae and Cyperaceae new to Newfoundland, and Kartesz (1999) for additional species new to Newfoundland. Voucher specimens are variously deposited in NFM, MT, and the herbarium of Sir Wilfred Grenfell College, Corner Brook, Newfoundland.

#### SPECIES ACCOUNTS

Species new to the Island of Newfoundland are marked with an asterisk. To protect sensitive location data, the wording of some location descriptions has been shortened, and some latitude and longitude coordinates have been rounded to the nearest minute. Square brackets have been used where the numerical precision of specimen citation data has been reduced.



## EQUISETACEAE

*Equisetum hyemale* L. subsp. *affine* (Engelm.) Calder & Roy L. Taylor

SPECIMEN CITATION: CANADA. Newfoundland: St. George's Bay, Fishells Brook, near mouth [48°19'N, 58°42'W], 9 Sep 2000, *N. Djan-Chékar & C. Hanel NDC 00-1581* (NFM, MT).

The only previous Newfoundland collection of this taxon was made in central Newfoundland in 1910 [Middle Birchy Pond, 11 Jul 1910, *M. L. Fernald & K. M. Wiegand 2364* (GH)]. Unfortunately the identity of the specimen is questionable (Bouchard et al. 1991). Hauke (1963) referred it to *Equisetum* × *trachyodon* A. Braun, a hybrid between *E. hyemale* and *E. variegatum* Schleich. Subsequently, Hauke (1993) included Newfoundland in the distribution of *E. hyemale* subsp. *affine* without any comment. The new population reported here was found on the sandy and gravelly bank of Fischells Brook on the west coast of the Island, almost 200 km from the original locality.

## ASTERACEAE

*Oclemena acuminata* (Michx.) Greene (= *Aster acuminatus* Michx.)

SPECIMEN CITATIONS: CANADA. Newfoundland: Southwest coast, J. T. Cheeseman Provincial Park, [47°38'N, 59°15'W], 3 Aug 2000, *C. Hanel & S. Powell CH 000803-5* (NFM, MT); Southwest coast, Port aux Basques area, [approx. 2 km] N of the turnoff to J. T. Cheeseman Provincial Park, [47°38'N, 59°14'W], 23 Sep 2002, *C. Hanel CH 020923-3* (NFM).

Common in eastern North America, this species was previously known from only two localities in western Newfoundland, both historical [Lark Mountain, 4 Sep 1926, *M. L. Fernald, B. Long & J. M. Fogg 460* (GH); Port aux Basques (back of), 31 Aug 1924, *M. L. Fernald, B. Long & B. Dunbar 27139* (GH)]. The recent collections are both from the same general locality on the southwest coast of the Island, probably very close to the site of Fernald's Port aux Basques collection.

\**Symphotrichum boreale* (Torr. & A. Gray) Á. Löve & D. Löve  
(= *Aster borealis* Provanch.)

SPECIMEN CITATION: CANADA. Newfoundland: Bay of Islands, Humber Arm, Wild Cove Brook, [48°58'N, 57°52'W], 4 Sep 2000, *N. Djan-Chékar, C. Hanel & H. Mann NDC 00-1461* (NFM, MT, Sir Wilfred Grenfell College).

A somewhat calciphilic fen species found throughout boreal and montane North America. This first Newfoundland collection is from



a rich fen on the central west coast, near Corner Brook. The species was previously known to occur as far east as Cape Breton Island, Nova Scotia (Zinck 1998).

*Symphotrichum ciliolatum* (Lindl. ex Hook.) Á. Löve & D. Löve  
(= *Aster ciliolatus* Lindl.)

SPECIMEN CITATION: CANADA. Newfoundland: Stephenville Area, Romaine's Brook, [48°33'N, 58°40'W], 14 Jul 1999, C. Hanel CH 990714-1 (NFM).

Previous to the NFRPP, the probable existence of this species on the Island of Newfoundland had been documented only once through the type of *Aster subgeminatus* Fernald [Table Mountain, 16 Aug 1910, M. L. Fernald, K. M. Wiegand & J. Kittredge 4126 (GH)], which now appears to be a hybrid between *Symphotrichum ciliolatum* and *S. novi-belgii* (L.) G. L. Nesom var. *novi-belgii*. The collection reported here is a good representative of the species. It was found in the forested floodplain of Romaine's Brook, near Table Mountain, on the west coast of the Island. At Romaine's Brook, *S. ciliolatum* does seem to hybridize with *S. novi-belgii*, supporting the probable hybrid status of Fernald's specimen. The species is somewhat calciphilic, and the area where it was discovered in Newfoundland is underlain by limestone.

\**Symphotrichum tradescantii* (L.) G. L. Nesom (= *Aster tradescantii* L.)

SPECIMEN CITATIONS: CANADA. Newfoundland: Head of St. George's Bay, Bottom Brook, First Pond, 48°31'N, 58°16'W, 15 Jul 1999, J. E. Maunder NFM 6721 (NFM); Bay St. George, Southwest Brook, [near] TCH bridge over brook, [48°30'N, 58°16'W], 30 Jul 2000, C. Hanel & S. Powell CH 000730-36 (NFM); Southern Long Range Mountains, Bottom Brook, upstream from Third Pond, [48°32'N, 58°12'W], 13 Sep 2000, N. Djan-Chékar & D. Brake NDC 00-1728 (NFM, MT).

This species was reported from southern Newfoundland by Fernald (1950). However, the report was rejected by Meades et al. (2000) owing to the absence of verified specimens. The specimens listed here were collected by the NFRPP on sandy riverbanks and lake shores near the head of St. George's Bay in western Newfoundland, finally confirming the presence of the species on the Island.

#### CISTACEAE

\**Lechea intermedia* Legg. ex Britton

SPECIMEN CITATION: CANADA. Newfoundland: Exploits Valley, Grand Falls, W of community, Exploits River, [near] mouth of Thunder Brook, [48°56'N, 55°49'W], 30 Aug 2001, C. Hanel & J. Hancock CH 010830-15 (NFM, MT).



This species is widely distributed in eastern parts of southern Canada and the northern United States (Scoggan 1978). The specimen from Grand Falls in central Newfoundland was collected in gravel and cobbles on a sloping riverbank. The next nearest records are from Cape Breton Island, Nova Scotia (Zinck 1998).

#### HYPERICACEAE

##### \**Hypericum pulchrum* L.

SPECIMEN CITATION: CANADA. Newfoundland: Bay St. George, Black Duck, [shore of Harry's River], [48°34'N, 58°22'W], 21 Jul 2000, C. Hanel & S. Powell CH 000727-17 (NFM, MT).

This species is native to Eurasia. The only previous report for North America is from Saint-Pierre et Miquelon (Meades et al. 2000). The Newfoundland specimen was found at Black Duck, on the west coast of the Island, in an old abandoned field.

#### GENTIANACEAE

##### \**Bartonia virginica* (L.) Britton, Sterns & Poggenb.

SPECIMEN CITATIONS: CANADA. Newfoundland: Codroy Valley, N of Doyles along the TCH, [47°51'N, 59°9'W], 8 Sep 2000, N. Djan-Chékar, C. Hanel & H. Mann NDC 00-1563 (NFM, MT); South Coast, Burgeo, ~5 km WNW of, [47°37'N, 57°41'W], 13 Aug 2000, C. Hanel CH 000813-1 (NFM).

This species is an Atlantic coastal plain element of the eastern North American flora. As reported by Meades et al. (2000), it was first collected in Newfoundland, by the NFRPP, in 2000. Both collections were from open, acidic habitats (rocky heath and bog) in southern regions of the Island. The species was already known from nearby Saint-Pierre et Miquelon (Rouleau and Lamoureux 1992).

#### HALORAGACEAE

##### \**Proserpinaca pectinata* Lam.

SPECIMEN CITATION: CANADA. Newfoundland: Southern Long Range Mountains, Bottom Brook, upstream from Third Pond, [48°32'N, 58°12'W], 13 Sep 2000, N. Djan-Chékar & D. Brake NDC 00-1720 (NFM, MT).

This is a species of the Atlantic coastal plain of North America. It was unknown from Newfoundland until the NFRPP made this collection at Bottom Brook, near the head of St. George's Bay on the west coast of the Island. Plants were growing in mats of aquatic vegetation rooted in



soft sandy mud on a riverbank. The next nearest records are from Nova Scotia (Crow and Hellquist 2000).

#### RANUNCULACEAE

##### *Ranunculus recurvatus* Poir. in Lam. var. *recurvatus*

SPECIMEN CITATION: CANADA. Newfoundland: Serpentine Lake, Blue Hill Brook, [48°53'N, 58°19'W], 13 Aug 1999, L. Brouillet, S. Hay & D. Ballam LB 99-224 (NFM).

This taxon had last been collected in Newfoundland in 1962 [Sheep Brook, 1962, E. Rouleau 7633 (MT)]. As indicated by Meades et al. (2000), it was rediscovered by the NFRPP, in 1999, in an alder swamp at Serpentine Lake, a new locality for the taxon in western Newfoundland. The specimen documents the report by Meades et al. (2000).

#### CYPERACEAE

##### *Carex petricosa* Dewey var. *misandroides* (Fernald) B. Boivin

SPECIMEN CITATION: CANADA. Newfoundland: Bay of Islands, Goose Arm, William Wheeler Point, [49°10'N, 57°52'W], 21 Jul 2000, N. Djan-Chékar, J. Maunder, L. Brouillet & C. Wentzell NDC 00-424B (NFM, MT).

This sedge is rare in Canada. It is an eastern North American endemic known only from northern Québec, the Gaspé Peninsula, and western Newfoundland (Bouchard et al. 1991; Labrecque and Lavoie 2002). It had not been collected in Newfoundland since the late 1960s [Table Mountain (summit), Pine Tree, 19 Jul 1967, E. Rouleau 10863 (MT)]. The population reported here was originally discovered by Ernest Rouleau in 1948 [Goose Arm, William Wheeler Point, Jul 1948, E. Rouleau 184 (MT)].

##### \**Carex radiata* (Wahlenb.) Small

SPECIMEN CITATION: CANADA. Newfoundland: Bay of Islands, Humber Arm, Wild Cove Brook, [48°58'N, 57°53'W], 19 Jul 2000, N. Djan-Chékar, C. Hanel, L. Brouillet, J. Maunder, C. Wentzell & S. Powell NDC 00-375 (NFM, MT, Sir Wilfred Grenfell College).

This species is known from deciduous and mixed forests in eastern North America (Ball 2002). John Bell collected a Newfoundland specimen in 1867 [Great Codroy River, 10 Jul 1867, J. Bell s.n. (MT)]. Bell originally identified it as *Carex rosea* Schkuhr, a name that has been frequently misapplied to *C. radiata* (Ball 2002). Ernest Rouleau



later reexamined Bell's specimen and assigned it to *C. cephalantha* E. P. Bicknell. As a consequence, *C. radiata* has never been included in plant lists for Newfoundland and Labrador (Meades et al. 2000; Robertson 1984; Rouleau 1978; Rouleau and Lamoureux 1992). The collection by the NFRPP, in alluvial thickets at Wild Cove Brook, on the Island's west coast, led to the reidentification of Bell's 1867 specimen as *C. radiata*.

\**Carex retrorsa* Schwein.

SPECIMEN CITATION: CANADA. Newfoundland: Long Range Mountains, Deer Lake, shore at mouth of Upper Humber River, [49°10'N, 57°28'W], 29 Aug 2000, N. Djan-Chékar, C. Hanel, L. Lavers, H. Mann & C. Wentzell NDC 00-1300 (NFM).

This species occurs in wet habitats across North America (Reznicek and Ford 2002). It was reported for Newfoundland by Scoggan (1978), but Meades et al. (2000) rejected the report because no voucher could be found in herbaria. Reznicek and Ford (2002) also omitted the Newfoundland report. The collection made by the NFRPP on the shores of Deer Lake confirms the occurrence of the species on the Island.

\**Eleocharis erythropoda* Steud.

SPECIMEN CITATION: CANADA. Newfoundland: Northeast coast, New World Island, Summerford, SE of, [49°29'N, 54°46'W], 22 Jul 2001, C. Hanel & S. Pardy CH 010722-11 (NFM, MT).

Two *Eleocharis* collections from western Newfoundland [Serpentine Lake (western end of), 14 Aug 1951, E. Rouleau 2408 (MT, NFLD, DAO); Steady Brook, Humber River, 19 Aug 1948, E. Rouleau 482 (MT, NY, NFLD, ACAD, CAN, DAO)] were examined by S. Galen Smith (WIS) in 1999 for the Flora of North America Project, and determined to be intermediates between *E. erythropoda* and *E. palustris* (L.) Roem & Schult. However, typical examples of *E. erythropoda* remained unknown from Newfoundland. The presence of the species is now confirmed by the specimen from a saltmarsh on the northeast coast. The species is found across North America, with the next nearest location being in New Brunswick (Smith et al. 2002).

\**Scirpus pedicellatus* Fernald

SPECIMEN CITATIONS: CANADA. Newfoundland: Long Range Mountains, Upper Humber River, upstream from Reidville, [49°14'N, 57°22'W], 28 Aug 2000, C. Hanel, L. Lavers & C. Wentzell CH 000828-13 (NFM, MT); Long Range Mountains, Upper Humber River, Reidville, [49°13'N, 57°23'W], 30 Aug 2000, C. Hanel, L. Lavers & H. Mann CH 000830-2 (NFM, MT, Sir Wilfred Grenfell College).



These first Newfoundland collections of this eastern North American species were made by the NFRPP on the west coast of the Island. The plant grows on the muddy banks of backwaters of the Humber River. The identities of both collections were confirmed by Alfred E. Schuyler (PH). The next nearest records are from Nova Scotia (Whittemore and Schuyler 2002).

#### JUNCACEAE

##### *Juncus subcaudatus* (Engelm.) Coville & S. F. Blake

SPECIMEN CITATIONS: CANADA. Newfoundland: St. George's Bay, Fishells Brook, near mouth, [48°19'N, 58°42'W], 9 Sep 2000, *N. Djan-Chékar & C. Hanel* NDC 00-1584 (NFM, MT); 10 Sep 2000, *N. Djan-Chékar & C. Hanel* NDC 00-1627, NDC 00-1634, NDC 00-1636 (NFM, MT); Exploits Valley, Grand Falls, Exploits River, below (S of) dam, [48°55'N, 55°40'W], 28 Aug 2001, *C. Hanel, H. Thomas & J. Hancock* CH 010828-34 (NFM, MT); Grand Falls, W of community, Thunder Brook, [48°56'N, 55°49'W], 30 Aug 2001, *C. Hanel & J. Hancock* CH 010830-11 (NFM, MT).

This species was first reported for Newfoundland in 1990, following a revision of historical specimens that had been misidentified (Hay et al. 1990). On the basis of these records, the species was known only from the Avalon Peninsula [Peter's River, approx. 2 mi. southeast of, 17 Sep 1959, *E. Rouleau* 5156 (MT, NFLD)], and from north central Newfoundland [Grand Falls, 11 Aug 1911, *M. L. Fernald, K. M. Wiegand & H. T. Darlington* 5127 (MT, GH); Grand Falls, along the Exploits River, 12 Aug 1911, *M. L. Fernald, K. M. Wiegand & H. T. Darlington* 5128 (GH); Sheffield Lake, Southwest Brook, at the mouth of, 16 Aug 1951, *E. Rouleau* 2512 (MT, NFLD, DAO)]. The NFRPP found the species at Fishells Brook and in the Exploits Valley. The Fishells Brook collections extend the known range of the species into western Newfoundland.

#### POTAMOGETONACEAE

##### \**Potamogeton richardsonii* (A. Benn.) Rydb.

SPECIMEN CITATIONS: CANADA. Newfoundland: Great Northern Peninsula, Indian Pond, 50°41'N, 57°13'W, 17 Jul 1997, *J. E. Maunder* NFM 7700 (NFM); Grand Codroy River, NW of Doyles, 47°50'N, 59°12'W, 22 Jul 1997, *J. E. Maunder* NFM 7701 (NFM).

Botanists from the NFRPP examined unidentified *Potamogeton* material held at NFM and discovered *P. richardsonii*, which was previously unknown for the Island. The specimens were collected at two



widely separated locations on the west coast of the Island: in a lake and in a slow-moving backwater of a large river. *Potamogeton richardsonii* is a North American endemic found across the continent (Haynes and Hellquist 2000). The next nearest records are from the Gaspé Peninsula, Québec (Faubert 2000), and Cape Breton Island, Nova Scotia (Zinck 1998).

\**Potamogeton robbinsii* Oakes

SPECIMEN CITATIONS: CANADA. Newfoundland: Southern Long Range Mountains, Bottom Brook, E of Third Pond, [48°32'N, 58°12'W], 13 Sep 2000, N. Djan-Chékar, C. Hanel, D. Brake & H. Smith NDC 00-1736 (NFM, MT); Exploits Valley, Grand Falls, W of community, Exploits River, [48°56'N, 55°45'W], 30 Aug 2001, C. Hanel & J. Hancock CH 010830-43 (NFM, MT).

This species is patchily, but widely, distributed throughout North America (Haynes and Hellquist 2000). The collections reported here are from backwaters along rivers in two different watersheds, one on the west coast and one in central Newfoundland. The next nearest records are from Cape Breton Island, Nova Scotia (Zinck 1998).

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